

REMARKS

Claims 24, 26, 30, 31, 33-37, 39-41 and 43-46 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Tozuka et al in view of Gelati. Claims 24, 26, 30, 31, 41, 43, 45 and 46 have been cancelled, leaving claims 33-37, 39, 40 and 44 of this group. Claims 39 and 44 are independent claims and have been amended as has claim 40. Claims 33, 34 and 37 depend from claim 44, whereas claims 35, 36 and 40 depend from claim 39. Moreover, it is respectfully submitted that independent claims 39 and 44 clearly patentably distinguish over the cited references by reciting, *inter alia*, that the electrical contact component is made of metal sheet material having a contact section, another section in parallel spaced relation from the contact section, an intermediate section that interconnects one end of each of the contact section and another section, an opening extending through the intermediate section that receives a second conductor, and an inturned lip integral with the contact section in axial spaced relation from the opening in the intermediate section that acts as a stop for the second conductor when inserted through the opening in the intermediate section. Neither Tozuka et al nor Gelati nor any of the other cited references discloses or suggests an electrical contact component including an inturned lip that acts as a stop for the second conductor when inserted through the opening in the intermediate section in the manner disclosed and claimed herein. In Tozuka et al, the stop for the conductor 1 is the end wall of the holder 11, whereas in Gelati the stop for the conductor 4 is the tapered hole in the cover 2 which is engaged by the insulated portion of the conductor. Accordingly, claims 39 and 44 are submitted as clearly allowable.

Claims 35, 36 and 40 depend from claim 39 and claims 33, 34 and 37 as well as newly added claims 47-50 depend from claim 44 and are submitted as allowable for substantially the same reasons. Moreover, claims 40 and 47 further patentably distinguish over the cited references by reciting the manner in which the clip is secured to the contact component, by providing the clip with a first segment that fits tightly between the intermediate section and another inturned lip integral with the another section of the contact component in spaced relation from the intermediate section.

Also, claims 48 and 49 further patentably distinguish over the cited references, claim 48 by reciting that the first conductor is integral with the contact component, and claim 49 by reciting that the first conductor has a wire terminal connection with the contact component.

Claim 50 further patentably distinguishes over the cited references by reciting that the contact section includes an elongate rib formed in the contact section transversely offset from the opening for locating the second conductor relative to the clip, and a release hole extending through the elongate rib transversely offset from the opening for receiving a clip release element. Tozuka et al shows an elongate rib in the contact section transversely offset from the opening for locating a conductor relative to the clip, but not the claimed release hole extending through the elongate rib transversely offset from the opening for receiving a clip release element.

Claims 38 and 42 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Tozuka et al in view of Gelati as applied to claim 39 and further in view of Kubota et al. According to the Examiner, Tozuka et al when modified by Gelati discloses all of

the limitations except for the grip locking end portion being transversely curved. For this feature, the Examiner relies on Kubota et al, contending that it would have been obvious to manufacture Gelati's grip locking end portion transversely, as taught by Kubota et al, to make the end portion correspond to the configuration of the second conductor. However, the grip locking end portion 1A of Kubota et al is described as having a tooth portion to bite the cable, not a grip locking end portion that is transversely curved across the entire width of the grip locking end portion to conform to the profile of the second conductor as recited in claims 38 and 42. Accordingly, claims 38 and 42 are also submitted as clearly allowable.

For the foregoing reasons, this application is now believed to be in condition for final allowance of all of the pending claims 33-40, 42, 44 and 47-50, and early action to that end is earnestly solicited. Should the Examiner disagree with applicants' attorney in any respect, it is respectfully requested that the Examiner telephone applicants' attorney in an effort to resolve such differences.

In the event that an extension of time is necessary, this should be considered a petition for such an extension. If required, fees are enclosed for the extension of time and/or for the presentation of new and/or amended claims. In the event any additional fees are due in connection with the filing of this amendment, the Commissioner is authorized to charge those fees to our Deposit Account No. 18-0988 (Charge No. CUTLP0101USA).

Respectfully submitted,

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APPENDIX -- Amendment Version With Markings to Show Changes Made

Following is a marked-up version of the above amendments to the claims, with added material underlined, and with removed material struck out and in brackets.

In the Claims

Please amend claims 38-40, 42 and 44 as follows:

38. (Amended) A locking connector for electrically interconnecting two or more electrical conductors:

an electrical contact component electrically interengaged with a first conductor, said contact component including a contact section and an opening that receives a second conductor;

and

at least one spring locking clip that is spring biased to grip the second conductor and hold the second conductor in electrical interengagement with said contact section, while resisting disengagement of the second conductor from said contact section, said clip having a grip locking end portion that is transversely curved across the entire width of said grip locking end portion to conform to the profile of the second conductor.

39. (Amended) A locking connector for electrically interconnecting two or more electrical conductors comprising:

an electrical contact component electrically interengaged with a first conductor, said contact component [~~including~~] being made of metal sheet material having a

contact section, another section [spaced] in parallel spaced relation from said contact section, [and] an intermediate section that interconnects one end of each of said contact section and said another section, [and] an opening extending through said intermediate section that receives a second conductor, and an inturned lip integral with said contact section in axial spaced relation from said opening in said intermediate section that acts as a stop for said second conductor when inserted through said opening in said intermediate section;

at least one spring locking clip that is spring biased to grip the second conductor and hold the second conductor in electrical interengagement with said contact section, while resisting disengagement of the second conductor from said contact section; and

a release hole formed through said contact section transversely offset from said opening for receiving a clip release element, said clip having a portion extending transversely outward of said opening in line with said release hole for engagement by the clip release element upon insertion of the clip release element into the release hole to urge said clip into an open condition to permit unobstructed insertion and removal of the second conductor into and out of said contact component.

40. (Amended) The connector of claim 39 wherein said clip [is secured to
~~said another section and is~~] has a first segment that fits tightly between said
intermediate section and another inturned lip integral with said another section in
spaced relation from said intermediate section to secure said clip to said contact
component, and a second segment depending from said first segment at an angle, said
second segment being spring biased toward said contact section.

42. (Amended) A locking connector for electrically interconnecting two or
more electrical conductors comprising:

an electrical contact component electrically interengaged with a first conductor,
said contact component including a contact section and an opening that receives a
second conductor;

at least one spring locking clip that is spring biased to grip the second conductor
and hold the second conductor in electrical interengagement with said contact section,
while resisting disengagement of the second conductor from said contact section, said
clip having a grip locking end portion in alignment with said opening that is spring
biased to grip the second conductor, [said grip locking end portion being transversely
curved across the full width of said grip locking end portion to conform to the profile of
the second conductor;

and

a release hole formed through said contact section transversely offset from said
opening for receiving a clip release element, said clip having a portion extending

transversely outward of said opening in line with said release hole for engagement by the clip release element upon insertion of the clip release element into the release hole to urge said clip into an open condition to permit unobstructed insertion and removal of the second conductor into and out of said contact component.

44. (Amended) A locking connector for electrically interconnecting two or more electrical conductors comprising:

an electrical contact component electrically interengaged with a first conductor, said contact component [~~including~~] being made of metal sheet material having a contact section, another section [~~spaced~~] in parallel spaced relation from said contact section, [and] an intermediate section that interconnects one end of each of said contact section and said another section, [~~and~~] an opening extending through said intermediate section that receives a second conductor, and an inturned lip integral with said contact section in axial spaced relation from said opening in said intermediate section that acts as a stop for said second conductor when inserted through said opening in said intermediate section;

and

at least one spring locking clip that is spring biased to grip the second conductor and hold the second conductor in electrical interengagement with said contact section, while resisting disengagement of the second conductor from said contact section.

New claims 47-50 have been added.